

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-22 (canceled).

Claim 23 (previously presented). A method of providing access to an anatomical structure in an anatomical region within a body, the method comprising the steps of:

providing an apparatus including a cannula, an inflatable balloon having a longitudinal axis and shaped for use in the anatomical region, wherein the balloon has a distal portion and a proximal portion, where the diameter, volume or perimeter of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon, and an inflation lumen having access to the interior of the balloon for inflating the balloon;

making an incision in a body;

inserting the balloon through the incision into the anatomical region;

directing the balloon to the vicinity of the anatomical structure; and

inflating the balloon to dissect tissue in the anatomical region to provide access to the anatomical structure such that the amount of dissection varies along the longitudinal axis of the balloon.

Claim 24 (previously presented). The method of claim 23 wherein the balloon inflates to a tapered shape such that the diameter of the tapered portion generally decreases along the length of the balloon.

Claim 25 (previously presented). The method of claim 23 wherein the balloon has a non-tapered portion and a tapered portion.

Claim 26 (previously presented). The method of claim 23 further comprising the step of performing a surgical procedure on the anatomical structure without removing the balloon from the body.

Claim 27 (previously presented). The method of claim 26 further comprising the step of insufflating the dissected tissue in the anatomical region prior to the step of performing a surgical procedure.

Claim 28 (previously presented). The method of claim 26 wherein the anatomical structure is a vein and the surgical procedure is the step of clipping, ligating or dividing the vein.

Claim 29 (previously presented). The method of claim 26 wherein the anatomical region is a subfascial plane in the lower leg of the body, the anatomical structure is a vein, and the surgical procedure is the step of clipping, ligating or dividing the vein in subfascial endoscopic perforator surgery.

Claim 30 (previously presented). The method of claim 23 further comprising the steps of deflating the balloon;
removing the balloon from the body through the incision; and

performing a surgical procedure on the anatomical structure.

Claim 31 (previously presented). The method of claim 30 further comprising the step of insufflating the dissected tissue in the anatomical region prior to the step of performing a surgical procedure.

Claim 32 (previously presented). The method of claim 30 wherein the anatomical structure is a vein and the surgical procedure is the step of clipping, ligating or dividing the vein.

Claim 33 (previously presented). The method of claim 30 wherein the anatomical region is a subfascial plane in the lower leg of the body, the anatomical structure is a vein, and the surgical procedure is the step of clipping, ligating or dividing the vein in the subfascial endoscopic perforator surgery.

Claim 34 (previously presented). The method of claim 23 wherein the apparatus includes a first part, a second part, and a handle comprising a first section and a second section, the method further comprising the steps of:

using the first section of the handle to remove the first part of the apparatus from inside the body;

using the second section of the handle to remove the second part of the apparatus from inside the body;

thereby creating a portal access into the body.

Claim 35 (previously presented). The method of claim 34 wherein the first part is a rod for tunneling in tissue in the body.

Claim 36 (previously presented). The method of claim 34 wherein the first part is an obturator.

Claims 37-45 (canceled).

Claim 46 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus comprising:

 a cannula having an end which is insertable through a laparoscopic incision in the patient's body;

 a coupling structure which couples the balloon to the cannula, where the coupling structure releases the balloon from the cannula when the balloon is inflated;

 an inflatable balloon coupled to the cannula, the balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, where the shape of the balloon allows the inflation of the balloon to cause a non-uniform dissection of tissue, wherein the balloon has a distal portion and a proximal portion, where the diameter, volume or perimeter of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon; and

 a lumen which provides access to the interior of the balloon for inflating the balloon with a fluid.

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Claim 47 (new). The apparatus of claim 46, wherein the balloon shape varies along a longitudinal axis wherein upon inflation, the balloon causes the non-uniform dissection of tissue in that a characteristic of the dissection is not identical throughout the dissection.

Claim 48 (new). The apparatus of claim 47, wherein the balloon shape varies along a longitudinal axis wherein upon inflation, the balloon causes the non-uniform dissection of tissue in that the characteristic of the dissection is the amount of the dissection.

Claim 49 (new). The apparatus of claim 46 further comprising a seal mounted to the cannula, the seal providing an air-tight seal between the anatomical region of the patient's body in which the balloon is used and the exterior of the patient's body.

Claim 50 (new). The apparatus of claim 46, wherein the coupling structure comprises a tearable sleeve with perforations.

Claim 51 (new). The apparatus of claim 46, wherein the balloon upon inflation has a non-tapered portion and a tapered portion.

Claim 52 (new). The apparatus of claim 51, wherein the balloon has a distal portion and the tapered portion is located at the distal portion of the balloon.

Claim 53 (new). The apparatus of claim 46, wherein the balloon has a tapered portion, the

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tapered portion having a distal portion which is adapted to dissect tissue upon inflation near the patient's ankle.

Claim 54 (new). The apparatus of claim 46, wherein the balloon in its deflated state is gathered about the cannula.

Claim 55 (new). The apparatus of claim 46 further comprising a handle coupled to the cannula, the handle comprising a first section and a second section, the first section of the handle permitting removal of a first part of the apparatus from inside the patient's body and the second section of the handle permitting removal of a second part of the apparatus from inside the patient's body.

Claim 56 (new). The apparatus of claim 55, wherein the first section of the handle removes at least a portion of the cannula from the patient's body.

Claim 57 (new). The apparatus of claim 46 further comprising a handle coupled to the cannula, the handle comprising a plurality of sections where each section of the plurality of sections permits the removal of a respective part of the apparatus from inside the patient's body such that a port providing access into the patient's body remains after use of the plurality of sections to remove the parts of the apparatus from the patient's body.

Claim 58 (new). The apparatus of claim 46 further comprising a valve coupled to the cannula, the valve controlling the passage of a fluid for insufflating the dissected tissue.

Claim 59 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus comprising:

 a cannula having an end which is insertable through a laparoscopic incision in the patient's body;

 a coupling structure comprising a tearable sleeve with perforations which couples the balloon to the cannula, where the coupling structure releases the balloon from the cannula when the balloon is inflated;

 an inflatable balloon coupled to the cannula, the balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, where the shape of the balloon allows the inflation of the balloon to cause a non-uniform dissection of tissue, wherein the balloon has a distal portion and a proximal portion, where the diameter, volume or perimeter of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon; and

 a lumen which provides access to the interior of the balloon for inflating the balloon with a fluid.

Claim 60 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus comprising:

a cannula having an end which is insertable through a laparoscopic incision in the patient's body;

an inflatable balloon coupled to the cannula, wherein a portion of the balloon in its deflated state is inverted into another portion of itself to reduce the length of the deflated balloon, the balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, where the shape of the balloon allows the inflation of the balloon to cause a non-uniform dissection of tissue; and

a lumen which provides access to the interior of the balloon for inflating the balloon with a fluid.

Claim 61 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus comprising:

a cannula having an end which is insertable through a laparoscopic incision in the patient's body;

an inflatable balloon coupled to the cannula, wherein the balloon in its deflated state is inverted into itself a plurality of times to reduce the length of the deflated balloon, the balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, where the shape of the balloon allows the inflation of the balloon to cause a non-uniform dissection of tissue, wherein the balloon has a distal portion and a proximal portion, where the diameter, volume or perimeter

of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon; and

a lumen which provides access to the interior of the balloon for inflating the balloon with a fluid.

Claim 62 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus comprising:

a cannula having an end which is insertable through a laparoscopic incision in the patient's body;

an inflatable balloon coupled to the cannula, wherein the balloon in its deflated state is inverted into itself and then gathered about the cannula, the balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, where the shape of the balloon allows the inflation of the balloon to cause a non-uniform dissection of tissue, wherein the balloon has a distal portion and a proximal portion, where the diameter, volume or perimeter of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon; and

a lumen which provides access to the interior of the balloon for inflating the balloon with a fluid.

Claim 63 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus comprising:

a cannula having an end which is insertable through a laparoscopic incision in the

patient's body;

an inflatable balloon coupled to the cannula, wherein the balloon in its deflated state is inverted into itself a plurality of times to reduce the length of the deflated balloon and then gathered about the cannula to reduce the width of the deflated balloon, the balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, where the shape of the balloon allows the inflation of the balloon to cause a non-uniform dissection of tissue, wherein the balloon has a distal portion and a proximal portion, where the diameter, volume or perimeter of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon; and

a lumen which provides access to the interior of the balloon for inflating the balloon with a fluid.

Claim 64 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus comprising:

a cannula having an end which is insertable through a laparoscopic incision in the patient's body;

an inflatable balloon coupled to the cannula, wherein the balloon in its deflated state is inverted into itself a plurality of times to reduce the length of the deflated balloon and then gathered about the cannula to reduce the width of the deflated balloon, the balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, where the shape of the balloon allows the

inflation of the balloon to cause a non-uniform dissection of tissue, wherein the balloon has a distal portion and a proximal portion, where the diameter, volume or perimeter of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon, and the balloon upon inflation ungathers itself from the cannula and then everts to cause a controlled inflation of the balloon; and

 a lumen which provides access to the interior of the balloon for inflating the balloon with a fluid.

Claim 65 (new). An apparatus for dissecting tissue to facilitate a laparoscopic surgical procedure in an anatomical region of a patient's body, the apparatus coming:

 a balloon being inflatable to a shape suitable for the laparoscopic surgical procedure and the anatomical region of the patient's body in which the balloon is to be used, the balloon having a distal portion and a proximal portion where the diameter of the balloon when inflated generally decreases from the proximal portion towards the distal portion of the balloon and wherein a portion of the balloon when deflated is inverted into another portion of itself to reduce the length of the balloon; and

 a lumen which provides access to the interior of the inflatable balloon for inflating the inflatable balloon with a fluid.

Claim 66 (new). The apparatus of claim 65, wherein the balloon when deflated has its margins gathered toward the center of the balloon.